

BMCRC FORMULA 400/Sub-64 400 2021 TECHNICAL SPECIFICATIONS & ADDITIONAL NOTES



1. **ELIGIBLE MODELS**

Machines must be production based models which would have been eligible for registration for road use at the time of manufacture.

2. **ENGINE SIZE**

Maximum engine capacity permissible is 415cc, allowing for overbores and engine wear. Both 4-stroke and 2-stroke machines are permissible.

3. **INDUCTION**

The Formula 400 Class is for carburetted engines except that fuel injection systems are permitted if fitted at original manufacture. Bikes manufactured with carburetted engines cannot be modified with any fuel injection system.

4. **MODIFICATIONS ALLOWED**

4.1 **Frame & Engine Cases.** The frame from headstock to swing-arm pivot, the rear swing-arm and the engine cases must all be from the same model, but these parts may be strengthened and excess lugs may be removed.

4.2 **Cylinders and Cylinder Heads.** These may be changed.

4.3 **Exhaust System, Air-box and Jetting.** These may be changed.

4.4 **Engine.** Internal parts may be modified or replaced.

5. **POWER OUTPUT**

5.1 The power of 4stroke powered machines is open and unrestricted.

5.2 The maximum power for 2-stroke powered machines shall be limited to 78bhp, as measured at the rear wheel on the BMCRC dynamometer, after racing. No tolerance will be allowed in this measurement.

6. **MINIMUM WEIGHTS**

The minimum post-race weight allowed for the machine, including fluids, lubricants, coolants and residual fuel (quantity as specified in ACU Standing Regulations) are:

400cc 4-stroke 140 kgs

400cc 2-stroke 127 kgs

250cc 2-stroke 117 kgs

YPM TZR eligible 250cc 2-stroke 115kgs

The replacement of fluids between the end of a race and the weighing of the bike, is not permitted.

7. **TYRES**

Tyres can be treaded or slick. Rain tyres may be used..

8. **FUEL**

For 4-stroke powered machines, the only permissible fuel is from roadside outlets, on which the duty and tax has been prepaid.

2-stroke powered machines, in addition to the above, may use "Avgas" either on its own, or mixed with the above permissible fuel.

9. **BODYWORK**

The profile may be altered from the standard production model.

10. **CONFORMITY**

In all other respects, the machine must conform to the ACU Standing Regulations for Solo Machines.

11. **FORMULA 400 Sub-64 bhp Class**

This class is run as a separate class within the Formula 400 to encourage participation by riders with stock bikes, but it is accepted that due to the age of most eligible bikes, it is impossible to simply state that bikes should be as manufactured. The following specific rules apply in addition to the regulations above:

11.05 **YPM TZR 250**

Any TZR250 conforming to Current YPMRC Regulations are eligible to enter the Sub-64 Class

11.1 **POWER OUTPUT**

Maximum permitted power of 2-stroke and 4-stroke machines is strictly limited to **64bhp** as measured **post-race** at the rear wheel on the BMCRC Dynamometer. No tolerance is allowed to this measurement.

11.2 **MODIFICATIONS**

11.2.1 **Ignition.** Standard Fitment ignition module or aftermarket are permitted, however any aftermarket ECU must not have the ability store more than 1 ignition map. (if in doubt please contact class rep or BMCRC Technical)

11.2.2 **Coils.** Stick Coils are permitted

11.2.3 **Quick shifters.** These are not allowed, Ignition interrupters are also not allowed.

11.2.4 **Wheels.** Any standard fitment OE wheels of similar construction and material to that of the original bike permitted.

Exotic Lightweight wheels e.g. Magnesium/Forged/Carbon are forbidden.

11.2.5 **Front Forks and Suspension.**

- Fork type is Open
- Any OEM production fork may be fitted.
- Radial caliper type forks are permitted.
- Fork springs may be replaced, and after market damper kits or valves may be installed
- Fork caps may be modified or replaced to allow external adjustments.

11.2.6 **Brakes.**

- Radial Calipers are permitted.
- Any Production front caliper allowed.
- The front master cylinder may be replaced with an alternative.

11.2.7 **Intake.** Carburettors as originally produced for that model of bike by the manufacturer must be retained, airbox and jetting may be changed.

11.2.8 **Others.** All other modifications as per the main championship class regulations.

11.3 **ENTRY TO THE CLASS**

11.3.1 **Entry** to this class will also score in the main Formula 400 Championship.

11.3.2 **Declaration.** When submitting an entry for the Formula 400 Class, riders and/or entrants who wish to participate in the Sub-64 Championship, must declare their intention to do so.

11.3.3 **Pre-Race Compliance Test.** Before competing in their first race of the year in this class, riders are required to submit their machine for power output measurement on the BMCRC Dynamometer, where-by the measurement does not exceed **64bhp** (no tolerance) the bike will be eligible for Sub-64.

11.3.4 **Pre-Race Compliance Test Result.** The result will be recorded by BMCRC Technical Official and, if the compliance test was passed, compliance marks and/or stickers may be attached as decided by the BMCRC Technical Official. The result will also be reported to the BMCRC Race Office.

11.3.5 **Post-Race Compliance Test.** After any race, one or more Formula 400 Sub-64 machines may be randomly required to have their bike's power output measured at the rear wheel on the BMCRC Dynamometer.

11.3.6 **Distinguishing bikes on track.** Riders in the ***Sub-64 Class are requested to colour their rear seat units bright orange***, or attach an orange Sub 64 sticker that is clearly visible from the rear. This is in order to clearly distinguish a Sub-64 bike when on circuit to any approaching rider.

11.3.7 **Non Compliance Penalty.**

11.3.7.1 **Exclusion from Results.** Any bike that exceeds the 64bhp limit will be reported to the Clerk of the Course, for the purpose of exclusion from the results of the Sub-64 class in that race. However, points will still be eligible for the Main Championship.

11.3.7.2 **Disputed Measurements and Appeals.** Measurements, including those from the BMCRC Dynamometer, are statements of fact, and as such are final and not disputable nor appealable. Request for retesting to verify a measurement will not be allowed.

11.3.7.3 **Restricted Further Competition.** If a machine has failed a power measurement test, it will not be entitled to compete in the Formula 400 Sub-64 class again, until it has been retested and passed the **64bhp** limit (same as the Pre-Race Compliance Test) limit on the BMCRC Dynamometer. This eligibility must then be communicated by the Technical Official to the Race Office at least **one hour** before the next Sub-64 class race. Again, it is the rider's sole responsibility to ensure the compliant measurement is obtained in time to be provided to Race Office.

11.3.8 **Persistent Non Compliance.** If a rider and/or same machine fails post-race power measurement **3 times** during a race season, they will then be excluded from the Sub-64 Championship for the whole season. However, points for the Main Championship will remain unaffected.

11.3.9 **Retesting.** It should be noted that riders may have to wait for Formula 400 Sub-64 tests if the Technical Officers are engaged in post-race power measurements of other classes. BMCRC will not normally charge for re-tests for compliance verification, but to deter abuse of this facility, the Technical Officials may impose a charge at their discretion.

ADDITIONAL NOTES

Championship Points

Points will be awarded for the main Championship and the Rookie Championship as if they were separate races even if the number of entries means that a combined grid is required.

Additionally Points in the Sub-64 Class will be awarded to the Sub-64 entrants in the main Championship race.

Race Trophies

Race Trophies will be awarded by the Club to the first 3 finishers across the line, be they Main Class, Sub 64 or Rookie

Sub-64 Class Objectives

Please remember that the original objective of the Sub-64 was to make it an easier, less expensive option for riders without the technical wherewithal or funds.

It was never, and remains not, the intention to create another class for racers who would spend heavily to have their bike tuned up to the maximum allowed simply to get trophies.

As stated in the regulations, Sub-64 Championship Points will not be awarded to any rider whose bike's power measures more than 64bhp when measured after racing.

Riders would be advised to understand that temperature, atmospheric pressure, humidity and other factors can result in a particular bike reading a few bhp more or less on a particular day. These are NOT variations of the Dynamometer but how the bike reacts to climatic and other changes. It would therefore be advisable for riders to be looking for a normal measurement of 60-62bhp to allow for any changes that might occur. It is for this reason that the Pre-Race Compliance Testing is restricted to 62bhp.

MD 08/12/2020